9.3: Data and Analysis

Data Collection

(Acquiring competencies) Following your detailed protocol based on the videos, perform all the experiments. Record your observations and take pictures of your key steps in the process. Your observations and images need to be incorporated in your data section and this section should be as detailed as possible as you will use this information to complete your discussion.

Data Processing

1. (Manipulation) Calculate the percent of the water absorbed relative to the mass of the polymer.

2. (Representation) Create a table for the results of your tests for each material with the purple cabbage indicator solution, the indicator-soaked polymer and using the pH paper.

3. Classify the substances you tested in your pH experiment as acidic, basic, or neutral.

Tested substance	Color of indicator solution (descriptive)	Color of indicator with polymer (descriptive)	pH from the pH paper	Acidic/Basic/Neutral

4. (Analysis) Evaluate your results by comparing the descriptive colors associated with materials that are acidic, basic, or neutral.

5. (Assumptions and Analysis) Fill in the following table using the observations and data from your experiments.

Assumptions made	Testing the assumption	If assumptions are wrong ...
All the extracted white solid from the diaper is polymer.		Difference between literature absorption data and our experiment.
The indicator is not affected by the presence of the polymer.	Compare the color of the indicator solution and the soaked polymer.	